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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,018	05/08/2001	William K. Lam	(P5426) SUNM-041XX	3328
207	7590	06/23/2004	EXAMINER	
WEINGARTEN, SCHURGIN, GAGNEBIN & LEOVICI LLP TEN POST OFFICE SQUARE BOSTON, MA 02109			GORDON, CARLENE MICHELLE	
			ART UNIT	PAPER NUMBER
			2124	

DATE MAILED: 06/23/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

PR4

Office Action Summary	Application No.	Applicant(s)	
	09/851,018	LAM ET AL.	
	Examiner	Art Unit	
	Carlene Gordon	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>U</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the application filed May 8, 2001.

Claims 1-19 have been submitted for examination.

Drawings

2. The formal drawings were received on 09/14/2001. These drawings will be acceptable if the appropriate corrections are made in regards to the following objections.

3. Figures 1, 2 and 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference character(s) mentioned in the description:

Reference [60] in Fig. 6 is missing that is described on pg. 15, line 15.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities:

The specification refers to Reference [60], which is not a part of Fig. 3 (pg. 15, line 29).

The specification refers to a generalized variable looping statement of Fig. 3 (pg. 15, lines 8-9, and other areas of the specification). There is a lack of antecedent basis for this statement given Fig. 3 is previously stated to be a generalized for loop statement. The term "variable" causes the statement to lack antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention is directed to non-statutory subject matter. The language of the claims raises a question as to whether the claims are directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. §101. The invention of claims 1-8 is an abstract idea.

8. To expedite a complete examination of the instant application the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 2 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2 and 10 recites the limitation "said initial condition" in the 2nd and 3rd line to claim 2, and the 3rd and 4th line of claim 10. There is insufficient antecedent basis for this limitation in the claim.

Claims 2 and 10 recites the limitation "said exit condition" in the 4th line of claim 2, and in the 5th line of claim 10. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1, 3-5, 9, 11-13, 17, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by **Biggerstaff** (U.S. Patent No. **6,745,384**), hereafter "Biggerstaff".

13. As to claim 1, Biggerstaff discloses:

determining an upper bound and a lower bound for a loop index within said variable looping statement (Fig. 33, line 1);

determining a condition that must be satisfied, said condition reflecting any

conditions within an initial expression and an exit expression of said variable looping statement (Fig. 33, line 3); and

forming a constant looping statement, wherein said upper bound and said lower bound define a range of values for a loop index within said constant looping statement (Fig. 33, line 1;), wherein said constant looping statement includes a nested conditional statement which tests said determined condition (Fig. 33, line 3), wherein a body of said constant looping statement comprises a body of said variable looping statement, and wherein said body of said constant looping statement is only executed in the event that said determined condition is satisfied (Fig. 33, lines 3-4).

14. As to claim 3, Biggerstaff further discloses:

determining whether said variable looping statement includes an increasing loop index value (col. 8, lines 38- 50, AO system evaluate loops with index variables.; Fig. 33).

15. As to claim 4, Biggerstaff further discloses:

in the event that said variable looping statement includes said increasing loop index value, said determining of said lower bound comprises determining a lower bound of said initial expression of said variable looping statement (Fig. 33).

It is inherent that a lower bound of the initial expression is determined.

16. As to claim 5, Biggerstaff further discloses:

in the event that said variable looping statement includes said increasing loop index value, said determining of said upper bound comprises determining an upper bound of said exit expression of said variable looping statement (Fig. 33). It is inherent that an upper bound of the exit expression is determined.

17. As to claims 9, 17, and 19, rejection of claim 1 is incorporated and further claims 9, 17, and 19 recite limitations as recited in claim 1, therefore, claims 9, 17, and 19 are rejected under the same rationale as claim 1, furthermore (col. 9, lines 34-45).

18. As to claim 11, rejection of claims 3 and 9 are incorporated and further claim 11 recites limitations as recited in claims 3 and 9, therefore, claim 11 is rejected under the same rationale as claims 3 and 9.

19. As to claim 12, rejection of claims 4 and 11 are incorporated and further claim 12 recites limitations as recited in claims 4 and 11, therefore, claim 12 is rejected under the same rationale as claims 4 and 11.

20. As to claim 13, rejection of claims 5 and 11 are incorporated and further claim 13 recites limitations as recited in claims 5 and 11, therefore, claim 13 is rejected under the same rationale as claims 5 and 11.

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Biggerstaff as applied to claim 1 above, and further in view of "Official Notice".

23. As to claim 2, Biggerstaff does not disclose:

wherein said determining said condition comprises forming a logical "AND" of said initial condition of said variable looping statement and said exit condition of said variable looping statement.

However, Biggerstaff does disclose wherein the determining condition comprises forming a logical "OR" of the initial condition and the exit condition. Furthermore, the Office takes Official Notice would have been well known in the art at the time of the invention to form a conditional statement using the logical "AND" operator. Using the logical "AND" operator is an obvious variation.

24. As to claim 6, Biggerstaff does not explicitly disclose:

determining whether said variable looping statement includes a decreasing loop index value.

However, Biggerstaff does disclose the teachings of claim 3, which

performs the opposite function. Furthermore, the Office takes Official notice it would have been obvious to one of ordinary skill in the art at the time of the invention to determine if the looping statement includes a decreasing loop index value. This is an obvious variation of the use of the invention.

25. As to claims 7 and 8, in further view of claim 6, it would be an obvious variation of the invention of Biggerstaff which includes an increasing loop index value:

in the event that said variable looping statement includes said decreasing loop index value, said determining of said lower bound comprises determining a lower bound of said exit expression of said variable looping statement (Fig. 33), and

in the event that said variable looping statement includes said decreasing loop index value, said determining of said upper bound comprises determining an upper bound of said initial expression of said variable looping statement (Fig. 33).

26. As to claim 10, rejection of claims 2 and 9 are incorporated and further claim 10 recites limitations as recited in claims 2 and 9, therefore, claim 10 is rejected under the same rationale as claims 2 and 9.

27. As to claim 14, rejection of claims 6 and 9 are incorporated and further claim 14 recites limitations as recited in claims 6 and 9, therefore, claim 14 is rejected under the same rationale as claims 6 and 9.

28. As to claim 15, rejection of claims 7 and 14 are incorporated and further claim 15 recites limitations as recited in claims 7 and 14, therefore, claim 15 is rejected under the same rationale as claims 7 and 14.

29. As to claim 16, rejection of claims 8 and 14 are incorporated and further claim 16 recites limitations as recited in claims 8 and 14, therefore, claim 16 is rejected under the same rationale as claims 8 and 14.

30. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Biggerstaff as applied to claim 1 above, and further in view of **Goebel** (U.S. Patent No. **6,009,272**).

Biggerstaff does not explicitly disclose a computer data signal embodied in a carrier wave including a computer program comprised of program code. However, Goebel discloses the signals through a network, which carry digital data, are carrier waves. Goebel also discloses sending and receiving this data, including program code, through the networks (col. 9, lines 18-50).

One of ordinary skill in the art at the time of the invention would have been motivated to combine the method and system of Biggerstaff with the network of Goebel to provide data communication through one or more networks. This network would be advantageous for sending and receiving data, especially the program code of Biggerstaff.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Nguyen et al. (U.S. Patent 6,035,125) (Abstract; Fig. 1, cols. 1-4, and 10-14) is relevant to claims 1-17, 19.
- b. Goebel (U.S. Patent 6,009,272) (col. 9, lines 18-50) is relevant to claim 18.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlene Gordon whose telephone number is (703) 605-4226. The examiner can normally be reached on Mon.-Fri. 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703) 305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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C.G. / *PS*.

A handwritten signature in black ink, consisting of several vertical strokes followed by a horizontal line and a diagonal flourish.

ANIL KHATRI
PRIMARY EXAMINER